



VITYARTHI

PROJECT REPORT

ON

"EMPLOYEE SALARY CRUD MANAGER IN PYTHON (INSERT, UPDATE, DELETE, VIEW)"

Submitted by

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1. Objective:

The objective of this project is to create a **simple, console-based Employee Management System** that allows the user to **insert, update, delete, and view** employee records, including salary details, without using any external Python libraries.

2. Scope:

- Manage employee records in memory (no database).
- Perform CRUD operations:
 - **Create:** Add new employee details.
 - **Read:** View all employees.
 - **Update:** Modify existing employee details.
 - **Delete:** Remove employee records.
- Store details: **Employee ID, Name, Department, Salary.**

3. System Requirements:

- **Software:** Python 3.x
- **Hardware:** Any system capable of running Python
- **Libraries:** None (pure Python)

4. Methodology:

- Use a **dictionary** to store employee records with Employee ID as the key.
- Implement functions for each CRUD operation.
- Use a **menu-driven interface** for user interaction.

5. Python Code:

```
"""
Employee Salary CRUD Manager
BY - KUSHAGRA GOYAL
    (1st year student at VIT bhopal university)
TOPIC - Write a python program code for creating a employee salary CRUD manager
        with insert, update, delete operations for employees details.

"""

Employees = {}

def insert_Employee(Employee_id, name, salary):
    Employees[Employee_id] = {"Employee id": Employee_id, "Name": name, "Salary": salary}
    print(f"✓ Employee {name} with salary ₹{salary} has been inserted successfully.")

def update_Employee(Employee_id, name, salary):
    if Employee_id not in Employees:
        print(f"Employee with ID {Employee_id} doesn't exist. Cannot update.")
        return
    Employees[Employee_id]["Employee id"] = Employee_id
    Employees[Employee_id]["Name"] = name
    Employees[Employee_id]["Salary"] = salary
    print(f"✓ Employee {name} with salary ₹{salary} has been updated successfully.")

def delete_Employee(Employee_id):
    if Employee_id not in Employees:
        print(f"Employee with ID {Employee_id} does not exist. Cannot delete.")
        return
    name_to_delete = Employees[Employee_id]["Name"]
    del Employees[Employee_id]
    print(f"✓ Employee {name_to_delete} with ID {Employee_id} has been deleted successfully.")
```

```
def View_Employees():
    if not Employees:
        print("✗ sorry! No Employees record found")
        return
    print("-----Employee Records-----")
    print("-" * 40)
    print(f"{'Employee id':<15}{{'Name':<15}{{'Salary':<15}}")
    print("-" * 40)
    for Employee_id, Employee_details in Employees.items():
        print(f"[Employee_details['Employee id']:<15]{Employee_details['Name']:<15}₹{Employee_details['Salary']:<15}")
    print("-" * 40)

#----- MAIN MENU -----
def main():
    while True:
        print("\n===== Employee Salary CRUD Manager =====")
        print("1. Insert Employee")
        print("2. Update Employee")
        print("3. Delete Employee")
        print("4. View Employees")
        print("5. Exit")

        choice = input("enter your choice(1-5):")
        if choice == "1":
            Employee_id = input("Enter Employee ID: ")
            name = input("Enter Employee name: ")
            salary = float(input("Enter Employee salary: "))
            insert_Employee(Employee_id, name, salary)
```

```

    elif choice == "2":
        Employee_id = input("Enter Employee ID to update: ")
        name = input("Enter Employee new name: ")
        salary = float(input("Enter Employee new salary: "))
        update_Employee(Employee_id, name, salary)

    elif choice == "3":
        Employee_id = input("Enter Employee ID to delete: ")
        delete_Employee(Employee_id)

    elif choice == "4":
        View_Employees()

    elif choice == "5":
        print("Exiting Employee Salary CRUD Manager. Goodbye")
        break

    else:
        print("X Invalid choice. Please try again.")

if __name__ == "__main__":
    main()

```

6. Sample Output:

```

===== Employee Salary CRUD Manager =====
1. Insert Employee
2. Update Employee
3. Delete Employee
4. View Employees
5. Exit
enter your choice(1-5):1
Enter Employee ID: ABC1010245123
Enter Employee name: KUSHAGRA GOYAL
Enter Employee salary: 1000000
✓ Employee KUSHAGRA GOYAL with salary ₹1000000.0 has been inserted successfully.

===== Employee Salary CRUD Manager =====
1. Insert Employee
2. Update Employee
3. Delete Employee
4. View Employees
5. Exit
enter your choice(1-5):1
Enter Employee ID: ABC1210245129
Enter Employee name: NIKHIL YADAV
Enter Employee salary: 1200000
✓ Employee NIKHIL YADAV with salary ₹1200000.0 has been inserted successfully.

===== Employee Salary CRUD Manager =====
1. Insert Employee
2. Update Employee
3. Delete Employee
4. View Employees
5. Exit
enter your choice(1-5):1
Enter Employee ID: ABC1410245140
Enter Employee name: PARV JAIN

```

```

Enter Employee salary: 1500000
✓ Employee PARV JAIN with salary ₹1500000.0 has been inserted successfully.

===== Employee Salary CRUD Manager =====
1. Insert Employee
2. Update Employee
3. Delete Employee
4. View Employees
5. Exit
enter your choice(1-5):1
Enter Employee ID: ABC1410245142
Enter Employee name: ADITYA KUSHWAH
Enter Employee salary: 800000
✓ Employee ADITYA KUSHWAH with salary ₹800000.0 has been inserted successfully.

===== Employee Salary CRUD Manager =====
1. Insert Employee
2. Update Employee
3. Delete Employee
4. View Employees
5. Exit
enter your choice(1-5):4
-----Employee Records-----
-----
Employee id      Name          Salary
-----
ABC1010245123   KUSHAGRA GOYAL ₹1000000.0
ABC1210245129   NIKHIL YADAV   ₹1200000.0
ABC1410245140   PARV JAIN    ₹1500000.0
ABC1410245142   ADITYA KUSHWAH ₹800000.0
-----

```

```

===== Employee Salary CRUD Manager =====
1. Insert Employee
2. Update Employee
3. Delete Employee
4. View Employees
5. Exit
enter your choice(1-5):3
Enter Employee ID to delete: ABC1410245140
✓ Employee PARV JAIN with ID ABC1410245140 has been deleted successfully.

===== Employee Salary CRUD Manager =====
1. Insert Employee
2. Update Employee
3. Delete Employee
4. View Employees
5. Exit
enter your choice(1-5):2
Enter Employee ID to update: ABC1010245123
Enter Employee new name: KUSHAGRA GOYAL
Enter Employee new salary: 1400000
✓ Employee KUSHAGRA GOYAL with salary ₹1400000.0 has been updated successfully.

===== Employee Salary CRUD Manager =====
1. Insert Employee
2. Update Employee
3. Delete Employee
4. View Employees
5. Exit
enter your choice(1-5):5
Exiting Employee Salary CRUD Manager. Goodbye

```

7. Advantages:

- No external dependencies.
- Simple and easy to understand.
- Fully functional CRUD operations.

8. Limitations:

- Data is stored in memory only (lost when program exits).
- No search or sorting functionality.
- No persistent storage (can be added later with file handling).

9. Future Enhancements:

- Add file/database storage for persistence.
- Implement search and filter features.
- Add user authentication.

10. References:

- [Python Official Documentation](#)
- [GeeksforGeeks - Python Dictionary](#)